

Cellular Immunology

AN INTERNATIONAL JOURNAL

EDITOR-IN-CHIEF: H. Sherwood Lawrence

Volume 136, 1991



ACADEMIC PRESS, INC.

Harcourt Brace Jovanovich, Publishers

San Diego New York Boston
London Sydney Tokyo Toronto

Copyright © 1991 by Academic Press, Inc.
All Rights Reserved

No part of this publication may be reproduced or transmitted in any form or by any means, electronic or mechanical, including photocopy, recording, or any information storage and retrieval system, without permission in writing from the copyright owner.

The appearance of the code at the bottom of the first page of an article in this journal indicates the copyright owner's consent that copies of the article may be made for personal or internal use, or for the personal or internal use of specific clients. This consent is given on the condition, however, that the copier pay the stated per copy fee through the Copyright Clearance Center, Inc. (27 Congress Street, Salem, Massachusetts 01970), for copying beyond that permitted by Sections 107 or 108 of the U.S. Copyright Law. This consent does not extend to other kinds of copying, such as copying for general distribution, for advertising or promotional purposes, for creating new collective works, or for resale. Copy fees for pre-1991 articles are as shown on the article title pages; if no fee code appears on the title page, the copy fee is the same as for current articles.

0008-8749/91 \$3.00

MADE IN THE UNITED STATES OF AMERICA

This journal is printed on acid-free paper.



Contents of Volume 136

NUMBER 1, AUGUST 1991

PETER VAN VLASSELAER, MELISSA FISCHER, SAMUEL STROBER, AND ALBERT ZLOTNIK. Regulation of Thymocyte Proliferation by $\alpha\beta$ TcR ⁺ CD3 ⁺ CD4 ⁻ CD8 ⁻ Cloned Natural Suppressor (NS) Cells	1
J. A. MARIANO AND J. R. BATTISTO. Peripheral Tolerance Induced in Lymph Nodes by Syngeneic Spleen Cells Inhibits Generation of CTLs to Hapten-Altered Self Antigens but Not to Alloantigens	16
MICHAEL T. HALPERN AND STANLEY A. SCHWARTZ. Modulation of a Human Immunosuppressive Lymphokine by Monosaccharides	29
ELLEN B. GILLIAM, PETER G. SCHULAM, J. PATRICK WHELAN, HOWARD M. ROSENBLATT, AND WILLIAM T. SHEARER. Phorbol Ester Plus Calcium Ionophore Induces Release of Arachidonic Acid from Membrane Phospholipids of a Human B Cell Line	41
HELEN C. O'NEILL. Preferential Expression of a Common T Cell Receptor Structure by T Cells Induced to Proliferate <i>in Vitro</i> with a Murine Retrovirus	54
CHRISTER LINDQVIST, EVA LOTTA NIHLMARK, TOMMY NORDSTRÖM, AND LEIF C. ANDERSSON. Interleukin-4 Downregulates the p70 Chain of the IL-2 Receptor on Peripheral Blood Mononuclear Cells	62
EDMUND C. LATTIME AND OSIAS STUTMAN. Thymic Lymphomas Mediate Non-MHC-Restricted, TNF-Dependent Lysis of the Murine Sarcoma WEHI-164	69
KAM M. HUI, BEE C. SIM, TOON T. FOO, AND AUDREY A. OEI. Promotion of Tumor Growth by Transfecting Antisense DNA to Suppress Endogenous H-2K ^b MHC Gene Expression in AKR Mouse Thymoma	80
STEFFEN ROTH, HELMUT GMÜNDER, AND WULF DRÖGE. Regulation of Intracellular Glutathione Levels and Lymphocyte Functions by Lactate	95
M. RAFFAELLA ZOCCHI AND ALESSANDRO POGGI. Activation of CD3/TCR Negative Human Thymocytes via CD28 Molecule	105
DÉA MARIA SERRA VILLA-VERDE, MARIE-PAULE DEFRESNE, ROLAND GREIMERS, MIREILLE DARDENNE, WILSON SAVINO, AND JACQUES BONIVER. Induction of Thymocyte Proliferation by Supernatants from a Mouse Thymic Epithelial Cell Line	113
H. W. HIRTE AND D. A. CLARK. Factors Determining the Ability of Cytokine-Activated Killer Cells to Lyse Human Ovarian Carcinoma Targets	122
HUGO E. JASIN. The Relationship between Circulating CD5 ⁺ B Lymphocytes and <i>in Vitro</i> Autoantibody Synthesis in Normal Individuals	133
HIROSHI ISHIDA, GLORIA YANG, NOBUYUKI HARADA, ROBIN L. HASTINGS, BRIAN E. CASTLE, ROBERT KASTELEIN, ATSUSHI MIYAJIMA, AND MAUREEN HOWARD. Evaluation of Murine Interleukin 4 (IL-4) Receptor Expression Using Anti-Receptor Monoclonal Antibodies and S1 Nuclease Protection Analyses	142
JACEK MAJEJCZYK, MAGDALENA MAJEJCZYK, AGATHA URBANSKI, ANDREAS KÖCK, STEFANIA JABLONSKA, GERARD ORTH, AND THOMAS A. LUGER. Constitutive Release of IL6 by Human Papillomavirus Type 16 (HPV16)-Harboring Keratinocytes: A Mechanism Augmenting the NK-Cell-Mediated Lysis of HPV-Bearing Neoplastic Cells	155
KIMO C. STINE, DOUGLAS S. TYLER, S. DAVID STANLEY, JOHN A. BARTLETT, DANI P. BOLOGNESI, AND KENT J. WEINHOLD. The Effect of AZT on <i>in Vitro</i> Lymphokine-Activated Killer (LAK) Activity in Human Immunodeficiency Virus Type-1 (HIV-1) Infected Individuals	165
CATHERINE PHILLIPS. Induction of Leukotriene Production before Antigen Challenge Enhances Antibody Affinity in Genetically Selected Mice	173
IZUMI NEGISHI, KAZUMASA OGASAWARA, KAZUYA IWABUCHI, BINGYAN WANG, ROBERT A. GOOD, AND KAZUNORI ONOÉ. H-2K Molecules Positively Select V β 17a ⁺ CD4 ⁺ CD8 ⁺ T Cells in Bone Marrow and Thymic Chimeras	185
GRAZIELLA MIGLIORATI, LAURA CARDINALI, AND CARLO RICCARDI. Effect of Interleukin-4 on Interleukin-2-Dependent Generation of Natural Killer Cells	194
GIULIO C. SPAGNOLI, CLARA AUSIELLO, CARLA PALMA, GRAZIELLA BELLONE, GIOVANBATTISTA IPPOLITI, MICHELLE LETARTE, AND FABIO MALAVASI. Functional Effects of a Monoclonal Antibody Directed against a Distinct Epitope on 4F2 Molecular Complex in Human Peripheral Blood Mononuclear Cell Activation	208

JAMES R. LANE, DAVID A. NEUMANN, ANNE LAFOND-WALKER, AHVIE HERSKOWITZ, AND NOEL R. ROSE. LPS Promotes CB3-Induced Myocarditis in Resistant B10.A Mice	219
SHORT COMMUNICATIONS	
KATSUJI NAKANO, HIDEYUKI HAYASHI, KENJI OKUGAWA, HATSUO FURUICHI, MOTOHARU IDO, AND YASUNOBU SOHMURA. Accelerated Recovery of Antigen-Presenting Cell Activity by the Administration of Interleukin 1 α in 5-Fluorouracil-Treated Mice	234
MARCIN BANBURA, ROBERT G. WEBSTER, MAX COOPER, AND PETER C. DOHERTY. Size and Frequency Characteristics of $\alpha\beta$ and $\gamma\delta$ T Cells in the Spleens of Normal and Cyclophosphamide-Suppressed Virus-Infected Chickens	242
MEETING REPORT	
DAVID R. WEBB. Mechanisms of Peripheral Tolerance: A Workshop on Antigen-Specific Suppression	251
ANNOUNCEMENT	257
PAPERS TO APPEAR IN FORTHCOMING ISSUES	258

NUMBER 2, SEPTEMBER 1991

MICHAL BERETA, JOANNA BERETA, STANLEY COHEN, KATIE ZAIFERT, AND MARION C. COHEN. Effect of Inflammatory Cytokines on the Adherence of Tumor Cells to Endothelium in a Murine Model	263
MIEKE C. J. VAN BRUGGEN, MARIES F. VANDEN BROEK, AND WIM B. VANDEN BERG. Streptococcal Cell Wall-Induced Arthritis and Adjuvant Arthritis in F344 $\rightarrow$ Lewis and in Lewis $\rightarrow$ F344 Bone Marrow Chimeras	278
VINCENZO GUARCELLO, DOUGLAS A. WEIGENT, AND J. EDWIN BLALOCK. Growth Hormone Releasing Hormone Receptors on Thymocytes and Splenocytes from Rats	291
MARK SCHUYLER, KATHERINE GOTT, AND PAT HALEY. Experimental Murine Hypersensitivity Pneumonitis	303
REINHARD SCHWINZER, HENNING SOMMERMEYER, HANS JÜRGEN SCHLITT, REINHOLD E. SCHMIDT, AND KURT WONIGEIT. Activation of Human Thymocytes by Antibodies to the CD3/T-Cell Receptor Complex: Triggering of Different Epitopes Results in Different Signals	318
V. K. TSIAGBE, J. L. RABINOWITZ, AND G. J. THORBECKE. I-E Expression Does Not by Itself Influence Growth of or T Cell Unresponsiveness to SJL Lymphomas	329
GERALD H. NABOZNY, JEFFREY C. FLYNN, AND YI-CHI M. KONG. Synergism between Mouse Thyroglobulin- and Vaccination-Induced Suppressor Mechanisms in Murine Experimental Autoimmune Thyroiditis	340
JEFFREY D. HASDAY, ELIZABETH M. SHAH, ANDREA M. HARRIS, WILLIAM S. WALKER, SUSAN M. ROBERSON, AND SUZANNE H. GIANNINI. Characterization of Effector Functions of v-raf/mil- and v-myc-Transformed Murine Splenic Macrophage Cell Lines	349
REGGIE DUERST AND KATHRYN WERBERIG. Cells of the J774 Macrophage Cell Line Are Primed for Antibody-Dependent Cell-Mediated Cytotoxicity following Exposure to γ -Irradiation	361
MASAMICHI HOSONO, MAFUMI KUROZUMI, MUNEO INABA, SHIN IDEYAMA, MITSURU TOMANA, JUN-ICHIRO GYOTOKU, YOSHIMOTO KATSURA, AND TOMOHIDE HOSOKAWA. Neonatal Tolerance Induction in the Thymus to MHC-Class II-Associated Antigens. IV. Significance of Intrathymic Chimerism of Blood-Born Ia ⁺ Cells in MIs Tolerance	373
AKIRA UEDA, JOHN LEU, AND ZOLTAN OVARY. Primary Anti-Trinitrophenyl Memory Cells Investigated by Plaque-Forming Cells and ELISA	388
HÉLÈNE-MARIE THÉRIEN, ELIANE SHAHUM, AND ANDRÉE FORTIN. Liposome Adjuvanticity: Influence of Dose and Protein:Lipid Ratio on the Humoral Response to Encapsulated and Surface-Linked Antigen	402
MICHAEL I. NISHIMURA AND SUZANNE OSTRAND-ROSENBERG. Mouse Hepa-1 Tumor Is Rejected by H-2D ^b -Restricted CTL Despite Decreased MHC Class I Antigen Expression	414
VICTORIA L. COHAN, ALAN L. SCOTT, CHARLES A. DINARELLO, AND ROBERT A. PRENDERGAST. Interleukin-1 Is a Mucus Secretagogue	425

REBECCA BLACKSTOCK, MAREK ZEMBALA, AND GEOFFREY L. ASHERSON. Functional Equivalence of Cryptococcal and Haptene-Specific T Suppressor Factor (TsF). I. Picryl and Oxazolone-Specific TsF, which Inhibit Transfer of Contact Sensitivity, also Inhibit Phagocytosis by a Subset of Macrophages 435

REBECCA BLACKSTOCK, MAREK ZEMBALA, AND G. L. ASHERSON. Functional Equivalence of Cryptococcal and Haptene-Specific T Suppressor Factor (TsF). II. Monoclonal Anti-cryptococcal TsF Inhibits both Phagocytosis by a Subset of Macrophages and Transfer of Contact Sensitivity ... 448

PHILIP J. MORRISSEY AND ROBIN IRELAND. GM-CSF Augments the Immunosuppressive Capacity of Neonatal Spleen Cells *in Vitro* 462

HIROKO TAKAYASU AND KATHRYN H. BROOKS. IL-2 and IL-5 Both Induce μ_s and J Chain mRNA in a Clonal B Cell Line, but Differ in Their Cell-Cycle Dependency for Optimal Signaling ... 472

JOHN R. ORTALDO, ROBIN T. WINKLER-PICKETT, HIDEO YAGITA, AND HOWARD A. YOUNG. Comparative Studies of CD3⁻ and CD3⁺ CD56⁺ Cells: Examination of Morphology, Functions, T Cell Receptor Rearrangement, and Pore-Forming Protein Expression 486

YASUHIRO YAMANE, MARITZA PEREZ, RICHARD EDELSON, NICODEMO AGOSTINO, AND BENVENUTO PERNIS. Endocytosis of the TCR/CD3 Complex and the Class-I Major Histocompatibility Complex in a Human T Cell Line 496

HISTORY OF IMMUNOLOGY

ARTHUR M. SILVERSTEIN. Ocular Immunology: On the Birth of a New Discipline 504

SHORT COMMUNICATION

VIOLAINE DAVID, GERALD LECA, NATHALIE CORVAIA, FRANCOISE LE DEIST, LAURENCE BOUMSELL, AND ARMAND BENSUSSAN. Proliferation of Resting Lymphocytes Is Induced by Triggering T Cells through an Epitope Common to the Three CD18/CD11 Leukocyte Adhesion Molecules 519

ANNOUNCEMENTS 525

PAPERS TO APPEAR IN FORTHCOMING ISSUES 527

AUTHOR INDEX FOR VOLUME 136 532

NOTICE

The Subject Index for Volume 136 will appear in the December 1991 issue as part of a cumulative index for the year 1991.

